

IN THE SPECIFICATION:

On page 1, before line 5, kindly insert the following new paragraph:

The application is a continuation of USSN 09/377,884; filed on August 19, 2001, now U.S. Patent No. 6,638,233, which is incorporated by reference.

On page 8, lines 3-16, kindly delete the present paragraph and insert the following new paragraph:

Referring to Figs. 3-4, a variety of catheter embodiments may incorporate a needle as a material capture device. Like the catheter of Fig. 2, these catheters rely on the motion of a cutter to control positioning of the material capture needle during cutting. The Figs. 3A-3B show the distal portion of a catheter 50 having an outer cutter 52 which reciprocates to control the deployment of the material capture needle 54. Additionally, in this embodiment, the material capture needle 54 is deployed to have a forward pointing sharpened tip. With the material capture needle 54 deployed, the catheter 50 would be pushed forward as indicated by arrow 56 to penetrate target material T. The catheter 50 may also incorporate a ski mechanism 58 to urge the cutting side of the catheter radially against the target material T. Such a ski mechanism is described in detail in commonly assigned, copending U.S. Patent Application No. 08/982,231, now U.S. Patent No. 6,027,514 (Attorney Docket No. 18489-000200), the full disclosure of which is incorporated herein by reference. All of the catheter structures herein may optionally employ such mechanisms.

On page 10, line 23 - page 11, line 2, kindly delete the present paragraph and insert the following new paragraph:

Referring now to Fig. 10, a drive wire 220 mounted within a drive tube 222 is used to move the inner cutter 200 from a first, open position to a second, closed position. Of course, other push/pull elements or separate push elements and pull elements may be used to

control the movement of the inner cutter 200. The drive wire 220 may be made of material such as stainless steel or nickel titanium. The drive tube 222 may also be made of a variety of materials such as a polymer like polyimide, polyurethane, or polyethylene or a flexible metal such as nickel titanium. The drive tube 222 may also be made from a composite of metal and polymer, or a metal that has material selectively removed to increase its flexibility. Further details of the drive tube can be found in commonly assigned, copending U.S. Patent Application No. 08/982,231; now U.S. Patent No. 6,027,514 (Attorney Docket No. 18489-000200US), the full disclosure of which is incorporated herein by reference.

On page 13, lines 14-29, kindly delete the present paragraph and insert the following new paragraph:

Figs. 15-18 show a still further embodiment of the material capture device using a penetrating member and a cam surface. In Fig. 15, the penetrating member comprise a curved needle 260 which is fixedly secured to the inner cutter 200 and biased against a cam surface 262. The curved needle 260 may be integrally formed with the inner cutter 200 or otherwise attached such as by welding or other methods known in the art. As the inner cutter 200 is advanced, the cam surface 262 will guide the needle 260 along a path outwardly to engage target material and then it back towards the catheter body. As discussed previously, the needle 260 need not move beyond the outer cutter 202, instead remaining even with the outer diameter of the outer cutter as the needle engages material. The inner cutter 200 may also include a material imaging device 264 such as an ultrasound transducer or optical fibers which will image tissue when the window 204 is closed by the cutter. The optical fibers may be used for optical coherence tomography or optical coherence reflectometry. A suitable ultrasound transducer or transducer array may be found in commonly assigned, copending U.S. Patent Application No. 09/378,224; now U.S. Patent No. 6,299,622 (Attorney Docket No. 18489-001000US), the full disclosure of which is incorporated herein by reference.